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Sequence Listing was accepted.
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Reviewer: Durreshwar Anjum
Timestamp: [year=2010; month=5; day=6; hr=16; min=3; sec=54; ms=159;]
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Validated By CRFValidator v 1.0.3

Application No: 10578139 Version No: 2.0

Input Set:

Output Set:

Started: 2010-04-30 17:29:08.471
Finished: 2010-04-30 17:29:11.488
Elapsed: 0 hr(s) 0 min(s) 3 sec(s) 17 ms
Total Warnings: 92
Total Errors: 0
No. of SeqIDs Defined: 92
Actual SeqID Count: 92

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W 213	Artificial or Unknown found in <213> in SEQ ID (18)
W 213	Artificial or Unknown found in <213> in SEQ ID (19)
W 213	Artificial or Unknown found in <213> in SEQ ID (20)

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Output Set:

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Total Errors: 0
No. of SeqIDs Defined: 92
Actual SeqID Count: 92

Error code	Error Description
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SEQUENCE LISTING

<110> MIYAGAWA , Shuji
MATSUNAMI , Katsuyoshi

<120> HLA-E CHIMERIC MOLECULE

<130> 2520-0132PUS1

<140> 10578139
<141> 2010-04-30

<160> 92

<170> PatentIn version 3.4

<210> 1
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
SP of HLA-E

<400> 1

Met Val Asp Gly Thr Leu Leu Leu Leu Leu Ser Glu Ala Leu Ala Leu
1 5 10 15

Thr Gln Thr Trp Ala
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<210> 2
<211> 90
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain of HLA-E

<400> 2

Gly Ser His Ser Leu Lys Tyr Phe His Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg
35 40 45

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Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
    50                  55                  60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr
65                  70                  75                  80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
                85                  90
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<210> 3
<211> 92
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence a2 domain of HLA-E

<400> 3

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Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp
1               5                   10                  15

Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp
            20                  25                  30

Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr
        35                  40                  45

Ala Ala Gln Ile Ser Glu Gln Lys Ser Asn Asp Ala Ser Glu Ala Glu
    50                  55                  60

His Gln Arg Ala Tyr Leu Glu Asp Thr Cys Val Glu Trp Leu His Lys
65                  70                  75                  80

Tyr Leu Glu Lys Gly Lys Glu Thr Leu Leu His Leu
                85                  90
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<210> 4
<211> 92
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence a3 domain of HLA-E

<400> 4

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr
20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu
35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
50 55 60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln
65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
85 90

<210> 5
<211> 63
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain of HLA-E

<400> 5

Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
1 5 10 15

Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val
20 25 30

Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Gly Ser Tyr Ser Lys
35 40 45

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu
50 55 60

<210> 6
<211> 63
<212> DNA

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
SP of HLA-E

<400> 6
atggtagatg gaaccctcct tttactcctc tcggaggccc tggcccttac ccagacctgg 60

gcg 63

<210> 7
<211> 270
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain of HLA-E

<400> 7
ggctcccact ccttgaagta tttccacact tccgtgtccc ggcccggccg cggggagccc 60

cgcttcatct ctgtgggcta cgtggacgac acccagttcg tgcgcttcga caacgacgcc 120

gcgagtccga ggatggtgcc gcgggcgccg tggatggagc aggaggggtc agagtattgg 180

gaccgggaga cacggagcgc cagggacacc gcacagattt tccgagtgaa tctgcggacg 240

ctgcgcggct actacaatca gagcgaggcc 270

<210> 8
<211> 276
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain of HLA-E

<400> 8
gggtctcaca ccctgcagtg gatgcatggc tgcgagctgg ggcccgacag gcgcttcctc 60

cgcgggtatg aacagttcgc ctacgacggc aaggattatc tcaccctgaa tgaggacctg 120

cgctcctgga ccgcggtgga cacggcggct cagatctccg agcaaaagtc aaatgatgcc 180

tctgaggcgg agcaccagag agcctacctg gaagacacat gcgtggagtg gctccacaaa 240

tacctggaga aggggaagga gacgctgctt cacctg 276

<210> 9
<211> 276
<212> DNA

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain of HLA-E

<400> 9
gagcccccaa agacacacgt gactcaccac cccatctctg accatgaggc caccctgagg 60

tgctgggccc tgggcttcta ccctgcggag atcacactga cctggcagca ggatggggag 120

ggccataccc aggacacgga gctcgtggag accaggcctg caggggatgg aaccttccag 180

aagtgggcag ctgtggtggt gccttctgga gaggagcaga gatacacgtg ccatgtgcag 240

catgaggggc tacccgagcc cgtcaccctg agatgg 276

<210> 10
<211> 192
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain of HLA-E

<400> 10
aagccggctt cccagcccac catccccatc gtgggcatca ttgctggcct ggttctcctt 60

ggatctgtgg tctctggagc tgtggttgct gctgtgatat ggaggaagaa gagctcaggt 120

ggaaaaggag ggagctactc taaggctgag tggagcgaca gtgcccaggg gtctgagtct 180

cacagcttgt aa 192

<210> 11
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
SP of HLA-G1

<400> 11

Met Val Val Met Ala Pro Arg Thr Leu Phe Leu Leu Leu Ser Gly Ala
1 5 10 15

Leu Thr Leu Thr Glu Thr Trp Ala
20

<210> 12

<211> 90
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain of HLA-G1

<400> 12

Gly Ser His Ser Met Arg Tyr Phe Ser Ala Ala Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Met Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ser Ala Cys Pro Arg Met Glu Pro Arg
35 40 45

Ala Pro Trp Val Glu Gln Glu Gly Pro Glu Tyr Trp Glu Glu Glu Thr
50 55 60

Arg Asn Thr Lys Ala His Ala Gln Thr Asp Arg Met Asn Leu Gln Thr
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
85 90

<210> 13
<211> 92
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain of HLA-G1

<400> 13

Ser Ser His Thr Leu Gln Trp Met Ile Gly Cys Asp Leu Gly Ser Asp
1 5 10 15

Gly Arg Leu Leu Arg Gly Tyr Glu Gln Tyr Ala Tyr Asp Gly Lys Asp
20 25 30

Tyr Leu Ala Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr
35 40 45

```
Ala Ala Gln Ile Ser Lys Arg Lys Cys Glu Ala Ala Asn Val Ala Glu
    50                  55                  60

Gln Arg Arg Ala Tyr Leu Glu Gly Thr Cys Val Glu Trp Leu His Arg
65                  70                  75                  80

Tyr Leu Glu Asn Gly Lys Glu Met Leu Gln Arg Ala
                85                  90
```

<210> 14
<211> 92
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence a3 domain of HLA-G1

<400> 14

```
Asp Pro Pro Lys Thr His Val Thr His His Pro Val Phe Asp Tyr Glu
1               5                   10                  15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Ile
            20                  25                  30

Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln Thr Gln Asp Val Glu Leu
        35                  40                  45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
    50                  55                  60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln
65                  70                  75                  80

His Glu Gly Leu Pro Glu Pro Leu Met Leu Arg Trp
                85                  90
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<210> 15
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence Transmembrane domain of HLA-G1

<400> 15

Lys Gln Ser Ser Leu Pro Thr Ile Pro Ile Met Gly Ile Val Ala Gly
1   5   10   15

Leu Val Val Leu Ala Ala Val Val Thr Gly Ala Ala Val Ala Ala Val
            20   25   30

Leu Trp Arg Lys Lys Ser Ser Asp
        35   40

<210> 16
<211> 72
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
       SP of HLA-G1

<400> 16
atggtggtca tggcgccccg aaccctcttc ctgctgctct cgggggccct gaccctgacc   60

gagacctggg cg   72

<210> 17
<211> 270
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
       a1 domain of HLA-G1

<400> 17
ggctcccact ccatgaggta tttcagcgcc gccgtgtccc ggcccggccg cggggagccc   60

cgcttcatcg ccatgggcta cgtggacgac acgcagttcg tgcggttcga cagcgactcg   120

gcgtgtccga ggatggagcc gcgggcgccg tgggtggagc aggaggggcc agagtattgg   180

gaagaggaga cacggaacac caaggcccac gcacagactg acagaatgaa cctgcagacc   240

ctgcgcggct actacaacca gagcgaggcc   270

<210> 18
<211> 276
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
       a2 domain of HLA-G1

<400> 18
agttctcaca ccctccagtg gatgattggc tgcgacctgg ggtccgacgg tcgcctcctc 60

cgcgggtatg aacagtatgc ctacgatggc aaggattacc tcgccctgaa cgaggacctg 120

cgctcctgga ccgcagcgga cactgcggct cagatctcca agcgcaagtg tgaggcggcc 180

aatgtggctg aacaaaggag agcctacctg gagggcacgt gcgtggagtg gctccacaga 240

tacctggaga acgggaagga gatgctgcag cgcgcg 276

<210> 19
<211> 276
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain of HLA-G1

<400> 19
gacccccca agacacacgt gacccaccac cctgtctttg actatgaggc caccctgagg 60

tgctgggccc tgggcttcta ccctgcggag atcatactga cctggcagcg ggatggggag 120

gaccagaccc aggacgtgga gctcgtggag accaggcctg caggggatgg aaccttccag 180

aagtgggcag ctgtggtggt gccttctgga gaggagcaga gatacacgtg ccatgtgcag 240

catgaggggc tgccggagcc cctcatgctg agatgg 276

<210> 20
<211> 123
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain of HLA-G1

<400> 20
aagcagtctt ccctgcccac catccccatc atgggtatcg ttgctggcct ggttgtcctt 60

gcagctgtag tcactggagc tgcggtcgct gctgtgctgt ggagaaagaa gagctcagat 120

tga 123

<210> 21
<211> 24
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
Reformed SP

<400> 21

Met Ala Val Met Ala Pro Arg Thr Leu Val Leu Leu Leu Ser Gly Ala
1 5 10 15

Leu Thr Leu Thr Glu Thr Trp Ala
20

<210> 22
<211> 90
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain

<400> 22

Gly Ser His Ser Leu Lys Tyr Phe His Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg
35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
50 55 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
85 90

<210> 23
<211> 92
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 23

Ser Ser His Thr Leu Gln Trp Met Ile Gly Cys Asp Leu Gly Ser Asp
1 5 10 15

Gly Arg Leu Leu Arg Gly Tyr Glu Gln Tyr Ala Tyr Asp Gly Lys Asp
20 25 30

Tyr Leu Ala Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr
35 40 45

Ala Ala Gln Ile Ser Lys Arg Lys Cys Glu Ala Ala Asn Val Ala Glu
50 55 60

Gln Arg Arg Ala Tyr Leu Glu Gly Thr Cys Val Glu Trp Leu His Arg
65 70 75 80

Tyr Leu Glu Asn Gly Lys Glu Met Leu Gln Arg Ala
85 90

<210> 24
<211> 92
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain

<400> 24

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr
20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu
35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
50 55 60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln
65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
85 90

<210> 25
<211> 63
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain

<400> 25

Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
1 5 10 15

Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val
20 25 30

Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Gly Ser Tyr Ser Lys
35 40 45

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu
50 55 60

<210> 26
<211> 72
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Reformed SP

<400> 26
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gagacctggg cg 72

<210> 27
<211> 270
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain

<400> 27
ggctcccact cct